

Amendments to the Claims

Please cancel claims 1-77 without disclaimer of, or prejudice to, the underlying subject matter. Please add new claims 78-90.

1-77. (Cancelled)

78. (New) A method of introgressing an allele conferring soybean cyst nematode resistance into a non-resistant soybean plant comprising

(A) crossing at least one soybean plant bearing an rhg1 SCN resistant allele with at least one soybean plant bearing an rhg1 SCN sensitive allele in order to form a segregating population, wherein said at least one soybean plant bearing said rhg1 SCN resistant allele is derived from one or more soybean lines selected from the group consisting of PI200499, A2869, PI404198B, PI404166, PI548988, PI507354, PI438489B, PI84751, PI407922, PI540556 and A2069,

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(B) screening said segregating population with one or more nucleic acid markers to identify an rhg1 SCN resistant allele, and

(C) selecting one or more members of said segregating population having said rhg1 SCN resistant allele.

79. (New) The method according to claim 78, wherein said one or more members of said segregating population bear yellow soybeans.

80. (New) The method according to claim 78, wherein said one or more nucleic acid markers are capable of detecting single nucleotide polymorphisms or INDEL mutations.

81. (New) The method according to claim 78, wherein said one or more nucleic acid markers are capable of detecting one or more polymorphisms selected from the group consisting of 45173, 45309, 45400, 45416, 45439, 45611, 45916, 45958, 46049, 46113, 47057, 47057, 47140, 47208, 47571, 47617, 47796, 47856, 47937, 48012, 48060, 48073, 48135, 48279, 48413, 48681, 49012, 49316, 46227, 46703, and 48881.

82. (New) The method according to claim 80, wherein said one or more nucleic acid markers are capable of detecting single nucleotide polymorphisms.

83. (New) The method according to claim 82, wherein said single nucleotide polymorphisms are selected from the group consisting of 45173, 45309, 45400, 45416, 45439, 45611, 45916, 45958, 46049, 46113, 47057, 47057, 47140, 47208, 47571, 47617, 47796, 47856, 47937, 48012, 48060, 48073, 48135, 48279, 48413, 48681, 49012, and 49316.

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84. (New) The method according to claim 80, wherein said one or more nucleic acid markers are capable of detecting INDEL mutations.

85. (New) The method according to claim 84, wherein said INDEL mutations are selected from the group consisting of 46227, 46703, and 48881.

86. (New) A method of introgressing an allele conferring soybean cyst nematode resistance into a non-resistant soybean plant comprising using one or more nucleic acid markers for marker assisted selection to select one or more soybean lines, wherein said allele is an rhg1 allele, and wherein said one or more nucleic acid markers are capable of detecting one or more single nucleotide polymorphisms, and

introgressing said allele into said non-resistant soybean plant.

87. (New) The method according to claim 86, wherein said single nucleotide polymorphisms in said rhg1 gene are selected from the group consisting of 45173, 45309, 45400, 45416, 45439, 45611, 45916, 45958, 46049, 46113, 47057, 47057, 47140, 47208, 47571, 47617, 47796, 47856, 47937, 48012, 48060, 48073, 48135, 48279, 48413, 48681, 49012, and 49316.

88. (New) The method according to claim 86, wherein said introgressing said allele into said non-resistant soybean plant results in one or more resistant progeny bearing yellow soybeans.

89. (New) A method of introgressing an allele conferring soybean cyst nematode resistance into a non-resistant soybean plant comprising using one or more nucleic acid markers for marker assisted selection to select one or more soybean lines, wherein said one or more nucleic acid markers are capable of detecting one or more polymorphisms selected from the group consisting of 45173, 45309, 45400, 45416, 45439, 45611, 45916, 45958, 46049, 46113, 46227, 46703, 47057, 47057, 47140, 47208, 47571, 47617, 47796, 47856, 47937, 48012, 48060, 48073, 48135, 48279, 48413, 48681, 49012, 48881, and 49316, and
introgressing said allele into said non-resistant soybean plant.

90. (New) The method according to claim 89, wherein said introgressing said allele into said non-resistant soybean plant results in one or more resistant progeny bearing yellow soybeans.

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